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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,199	06/25/2001	Ernett Altheimer	ALTE117421	9897

26389 7590 06/09/2003

CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC
1420 FIFTH AVENUE
SUITE 2800
SEATTLE, WA 98101-2347

EXAMINER

ALVO, MARC S

ART UNIT	PAPER NUMBER
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1731

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DATE MAILED: 06/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,199

Applicant(s)

ALTHEIMER ET AL

Examiner

Steve Alvo

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Applicant has added a new set of claims which are independent and distinct from the original claims examined in this application. Newly submitted claims 12-15 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The original claims 1-9 and new claims 10 and 11 are all drawn to bleaching to a brightness of at least 60%. The new claims, 12-15 are drawn to bleaching pulp which has been cooked to an H-factor of 850. Claims 1-11 (group I) do not require the H-factor cooking of new claims 12-15. Claims 12-15 (group II) do not require bleaching to a brightness of At least 60%. This case is an RCE and must be drawn to the same invention as the original claims examined. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 12-15 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "60%", "70%" and "85%" are indefinite it is not clear what the per cent is from. Does this mean the brightness increases 60%. The claim now reads as if the final; brightness after bleaching is 60% of the brightness before bleaching. Or is this supposed to be a brightness unit, e.g. 60% ISO. Clarification is required.

Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. The terms "60%", "70%" and "85%" were not originally disclosed. At best Example 6 in Table 14 shows a brightness of 60.7, 69.7 and 74.4. At best this is a disclosure of 61, 70, and 75 not "60%", "70%" and "85%". There are many different ways to measure brightness. Applicant did not disclose what brightness units were used, e.g. are these ISO units, GOST units or some other brightness unit.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over SINGH (text).

SINGH teaches Kraft pulping Arundo Donax and then bleaching the Kraft pulp with oxygen. The oxygen bleaching of SINGH is a TCF (totally chlorine free) bleaching process, as it does not use chlorine or chlorine dioxide. If necessary it would have been obvious that the pulp of SINGH has been subjected to a pulping process as Kraft pulping is a pulping process.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over SINGH or WO 99/66119 in view of CANADIAN PATENT 2,132,056 with or without WO 96/0943.

SINGH or WO 99/66119 teaches pulping Arundo Donax to form pulp and bleaching the pulp to brighten and whiten the pulp. CANADIAN PATENT 2,132,056 teaches TCF bleaching provides better environmental protection than either chlorine and/or chlorine dioxide (ECF) bleaching processes. It would have been obvious to the routineer to use any well-known TCF bleaching process, such as the bleaching sequences of CANADIAN PATENT 2,132,056, to provide better protection to the environment than the ECF bleaching sequence of WO 99/66119 (see abstract and claims 21 and 31). Or obvious to include other bleaching stages, e.g. the TCF bleaching stages of CANADIAN PATENT 2,132,056, for the oxygen bleaching stage of SINGH to further brighten and whiten the pulp. Figure 1 of CANADIAN PATENT 2,132,056 teaches a Q-O/O-EOP-PPP bleaching sequence (Table 3). CANADIAN PATENT 2,132,056 further teaches that the Q-stage could follow the O-stage or be between two O-stages, see page 8, lines 15-30 and that the second oxygen stage could be an EOP stage, see paragraph bridging pages 5 and 6. Thus it would have been obvious to substitute O-EOP for the O/O stage of CANADIAN PATENT 2,132,056. It would also be obvious to start the sequence with and O-Q-O/O bleach sequence, see page 8, lines 15-30, and thus an O-QWO-EOP-PPP would have been obvious to the routineer. If this is not obvious then O-Q-P bleaching sequences would have been obvious from WO 96/09434. The Q stage is normally acidic. If this is not obvious from the CANADIAN PATENT, then such is taught by WO 96/09434, page 2, lines 26-37. It is noted that Applicant has claimed many TCF bleach sequences, which comprise the same basic stages as CANADIAN PATENT 2,132,056. The exact order of stages has not been shown to be

critical. Are these TCF sequences conventional in the bleaching of pulp?

The argument that the Table of the SINGH text comes from the Robert et al article (supplied by Applicant) and discloses that the oxygen is a single stage of a multi-stage bleaching process, is not convincing as SINGH and Robert et al are comparing a single oxygen stage bleaching process to the conventional C-E bleaching process. The oxygen stage is one bleaching process and the CE stages are a conventional bleaching process. They are not stages in the same multistage bleaching process. See Robert et al, the paragraph bridging pages 49-50, where it is stated "...in the bleaching of kraft pulp (Table III) which the one-stage oxygen-caustic soda treatment was compared with a conventional two-stage treatment comprising chlorination and caustic soda."

The argument that SINGH is an oxygen delignification and not a bleaching step is not convincing as the Title of the SINGH TABLE is "Oxygen Bleaching of Kraft Pulp from Arundo Donax". Clearly the oxygen stage is a bleaching stage. It might remove lignin, but it ~~is~~ ^{a/s} o brightens the pulp.

The argument that to get a fully bleached pulp SINGH must use other chlorine bleaching stages is not convincing. The instant claims only call for a chlorine free process; it does not exclude chlorine dioxide stages. After the oxygen bleaching stage of SINGH the pulp is chlorine free bleached pulp. Besides the CANADIAN Patent '056 teaches that further bleaching stages brighten oxygen bleached pulp to values greater than 85 ISO (Table 2 and the paragraph under Table 2). It would have been obvious to further brighten the oxygen bleached pulp of SINGH or WO 99/66119 using the multiple bleach stages of CANADIAN Patent '056.

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When filing an **"Official"** FAX in Group 1730, please indicate in the Header (upper right) **"Official"** for papers that are to be entered into the file. The **"Official"** FAX phone numbers for this TC 1700 are:

Non-Final Fax: (703) 872-9310 After-Final FAX: (703) 872-9311.


When filing an **"Unofficial"** FAX in Group 1730, please indicate in the Header (upper right) **"Unofficial"** for Draft Documents and other Communications with the PTO that are not for entry into the file of the application. This will expedite processing of your papers. The **"Unofficial"** FAX phone number for this Art Unit (1731) is **(703) 305-7115**.

Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is **(703) 308-2048**. The Examiner can normally be reached on Monday - Friday from **6:00 AM - 2:30 PM (EST)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can be reached on 703-308-1164.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is **703-308-0661**.

MSA
5/2/2003


STEVE ALVO
PRIMARY EXAMINER
ART UNIT 1731

Steve Alvo
Primary Examiner
Art Unit 1731



BOX RCE

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: E. Alzheimer et al.

Attorney Docket No.: ALTE117421

Application No.: 09/892,199

Group Art Unit: 1731

Filed: June 25, 2001

Examiner: M.S. Alvo

Title: TOTAL CHLORINE FREE BLEACHING OF ARUNDO DONAX PULP

RECEIVED

APR 07 2003

#12/BM
4803C 1700REQUEST FOR CONTINUED EXAMINATION (RCE) UNDER 37 C.F.R. § 1.114 /
PETITION FOR AN EXTENSION OF TIME UNDER 37 C.F.R. § 1.136(a)

March 31, 2003

TO THE COMMISSIONER FOR PATENTS:

This is a request for continued examination (RCE) under 37 C.F.R. § 1.114 of the above-identified application, in which prosecution is closed.

- X 1. A submission as required under 37 C.F.R. § 1.114 is submitted as follows. Please consider the Amendment/Response Under 37 C.F.R. § 1.116 previously filed on February 3, 2003.
- X 2. Small entity status was previously asserted and continues to be appropriate.
- X 3. Applicants respectfully request that the shortened statutory period for response to the final Office Action, dated December 2, 2002, set to expire on March 2, 2003, be extended by 1 month, to expire on April 2, 2003. The enclosed check includes the 1-month extension fee of \$55.00.
- X 4. The filing fee for the present request for continued examination is calculated below. No claims in excess of the number previously submitted are being added.

COMPUTATION OF FEE

	Number Filed After Any Amendment	Highest Number Previously Paid For	Present Extra	Rate	Additional Fee
Basic RCE Filing Fee	-	=	x	=	375
Total Claims	15	- 15	= 0	x 9	= 0
Independent Claims	3	- 3	= 0	x 42	= 0
Extension of Time				+ 55	55
TOTAL					\$430

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LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{LLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100